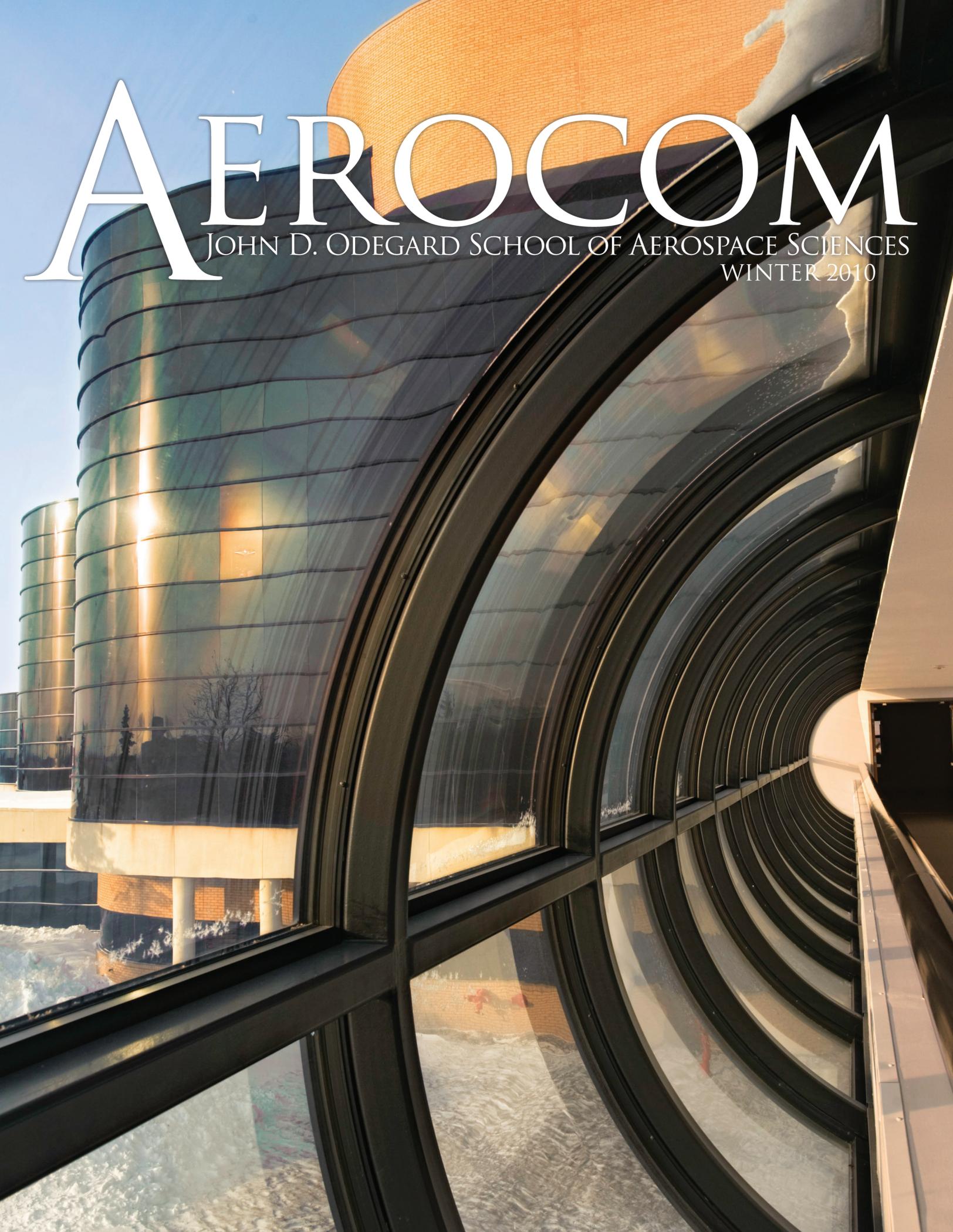


AEROCOM

JOHN D. ODEGARD SCHOOL OF AEROSPACE SCIENCES
WINTER 2010





A MESSAGE FROM THE DEAN

As we head into the middle of winter, people often ask; Why North Dakota?

It is a good question. We are somewhat isolated and it does get cold, but if you can see your way past those two elements, North Dakota is a special place. If you were to start from scratch and objectively list all of the factors that lead to a decision of what college to attend, the answers lie here and only here at the University of North Dakota.

First and foremost we provide the best possible curriculum. Being tied to the University of North Dakota sets us apart by providing the liberal arts foundation for a well rounded education. UND is a special place in and of itself with the colleges of Arts and Sciences, Business, Education, Engineering, Nursing, Law, Medicine, and Aerospace. Within Aerospace in addition to an outstanding undergraduate curriculum we now have Masters Programs in Aviation, Atmospheric Science, Space Studies, Computer Science and Earth Systems Science and Policy with Ph. D. programs in Scientific Computing, Atmospheric Science and Earth Systems Science and Policy. We reside on a beautiful campus with a full array of campus life experiences including intercollegiate athletics and a myriad of student activities.

The single most important factor in our flight operation is our unparalleled safety record. This is due to a number of elements only inherent to North Dakota. The airspace surrounding Grand Forks provides a large amount of open uncluttered airspace. I call it uncontested airspace. Our practice areas are very large and close by the airport and there is very little traffic other than our own aircraft. We fly over flat open terrain most of which is suitable for a runway. Although forced landings seldom occur, the probability of having a safe outcome is far better in North Dakota than most other areas of the country. We fly new aircraft fitted with the newest in avionics and instrumentation. Almost all of our aircraft are now "glass cockpit" equipped and we have onboard ADS-B equipment that gives us airborne alerts to other aircraft in our vicinity. New aircraft are safer and easier to maintain. Our mechanics are the best and their consistent pursuit of continuing education has led to the FAA's Diamond Award year after year.

This comprehensive approach to airspace and safety results in lower insurance rates and lower average time to obtain flight ratings which lowers our flight costs and allows our pilots to fly more hours in aircraft rather than in simulators. Our resident tuition is incredibly low and the reciprocity rates for many states are equally low. More importantly students who take the appropriate steps can claim residency and qualify for resident tuition after only attending the first year at UND. Given today's economic conditions, the Odegard School and UND provide a quality education at a great value.

Even our climate serves to our advantage. We may have long cold winters, but we have more than our share of sunshine. The change of seasons, the challenging weather, and the high winds provide the variation needed to provide a complete training experience for our students.

So, don't let the weather fool you. This is a great place to go to college.

Bruce A. Smith

AEROCOM

JOHN D. ODEGARD SCHOOL OF AEROSPACE SCIENCES

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AEROCOM
John D. Odegard School of Aerospace Sciences

Robert O. Kelley, *President, University of North Dakota*
Bruce Smith, *Dean, John D. Odegard School of Aerospace Sciences*
Paul Lindseth, *Associate Dean*
Ken Polovitz, *Assistant Dean*

Editor Josh Christianson
Design & Layout Ann Schneider
Photography Chuck Kimmerle, Justin Auch, Brenda Risky

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EXPERIENCE IS BETTER THAN THEORY

UND'S OBSERVATORY ENHANCES SPACE STUDIES EDUCATION ON A GLOBAL SCALE

BY AMANDA HVIDSTEN



One of the hidden gems of campus, UND's observatory has been under renovation since 2005. Now with four telescopes – three optical telescopes and one radio telescope - Dr. Paul Hardersen has been behind the majority of the progress turning the observatory into the leader in astronomy research and education in North Dakota and founding the Space Grant Internet Telescope Network (SGITN).

SGITN aims to build a network of internet-controlled telescopes across the globe. UND has four telescopes at its observatory and the network has a goal of 20 telescopes in total. Other observatories currently in the network are located in South Dakota, California, New Mexico, and Israel with additions from Utah and Illinois expected in the next year or two.

If an eligible student or faculty member – who studies or works at one of the more than 800 Space Grant affiliated colleges and universities across the country submits a project to the network, the network would give them global access to accomplish that project. The network can support projects as diverse as searching for new asteroids and comets, measuring the changes in brightness for different types of variable stars, and obtaining visible-wavelength spectra from stars. "I don't think



many people know about this because it's off campus and out of sight, but students as far away as Bulgaria have controlled the scopes," says Hardersen. The observatory is located ~10 miles west of Grand Forks. He explains how the observatory staff on site sets up the telescope and gives the OK to the observer, wherever in the world that person may be.

The four telescopes housed at UND's observatory are currently used to educate 10-20 students in a 400-level class. Once fully operational in 2010, the hope is to operate all four telescopes simultaneously so that four different people can be conducting four different projects at the same time. "We have several master's students doing great work," said Hardersen. "We're producing, but we want to expand it. Giving students early experience with telescopes such as acquiring and analyzing data will really help them." What is advantageous about SGITN is its interactivity. The individual actually controls the telescope. Whereas, with other networks one indicates what one wishes to see and that information is pulled up for them. Master's student Eric O'Dea said, "It's really useful. I'm taking observational astronomy and it is much better to have actual experience rather than theory. Since we have the facility everyone in the class gets to use the telescope for a whole night."

Dr. Phyllis Johnson, UND Vice President for Research / Economic Development, said, "UND is fortunate to have a suite of telescopes that enable us to learn more about space through careful observation. Most information we have about the universe has come from telescopic observations not from human space flight or unmanned space explorations and there is much yet to be learned."

There is nothing like this in the upper Midwest, with nothing else even available in the rest of North Dakota, South Dakota and Montana. The nearest large-scale astronomy department is at the University of Minnesota. O'Dea added, "I did undergrad at Boston University – they have a similar facility but it's in downtown Boston so the sight quality isn't that good. Here it's really dark. Essentially, the equipment is really good and we're looking to keep upgrading."

Bruce Smith, Dean of the Odegard School, said, "The observatory is truly a showcase for the Odegard School and the Space Studies Department. The observatory and other programs sponsored by Space Studies extend far beyond UND into the North Dakota University System and the Native American Community Colleges. We are excited about its future." ●

If you would like to help build a strong and vibrant astronomy research and education effort at UND please contact Josh Christianson, UND Aerospace Director of Development, at 701.777.4637 or joshc@aero.und.edu.

UND AEROSPACE FOUNDATION

The UND Aerospace extension site in Mesa, AZ has moved into a new facility at Williams Gateway Airport.



In January 2010, the first class of 12 Norwegian air traffic control students arrived on campus to begin their training. This is the first year of a three year agreement with Avinor, the state owned company responsible for air traffic control services in Norway, to train up to 36 air traffic controllers per year.

The UND Aerospace Foundation has secured a piece of history. "The Barn" has been part of the aviation program at UND since its inception. The structure was originally located at the former Grand Forks airport location along present-day 42nd Avenue near campus and was moved to the current airport site in 1963. It houses the Seminoles, Top Cub, Decathlon and PA-12. In July 2009, the UND Aerospace Foundation acquired the hangar and invested more than \$240,000 to bring it up to standards with the other airport facilities.

*Photo taken prior to refurbishment.



STUDENTS IN THE FIELD AND SKY

The UND Computer Science team of *Eric Huhtala, Grant Hadlich, Kyle Burg,* and *Jeremy Vogele* took second place in the programming competition at Digi-Key in Thief River Falls, MN. Each member received a prize valued at \$150 and the team award was shared by the Department of Computer Science and the UND Chapter of the Association for Computing Machinery Club.



Andrew Leonard, a graduate student in aviation management at the John D. Odegard School of Aerospace Sciences (UND Aerospace) was named "Outstanding Centers of Excellence Student of the Year" by the Federal Aviation Administration (FAA) Centers of Excellence (COE) program.



Leonard, a Dent, Minnesota, native with a perfect 4.0 grade point average, obtained his private pilot certificate in 2007 and is working toward completion next month of his commercial pilot certificate. He is a graduate research assistant, teaching undergraduate courses in long-range navigation, airline operations and management, among others. Leonard also is an operator of the UND altitude chamber, manipulating simulated altitudes for training and research activities, monitoring chamber and individual safety, and serving as an instructor of altitude chamber procedures, director of graduate studies at UND Aerospace, Kim Kenville said.

Leonard's FAA COE research involves collecting and analyzing data from several specially equipped UND helicopters. The special global positioning (GPS) system equipment aboard the helicopters tracks the aircraft's position and is a core component of the federal government's Next Generation Air Transportation System.

Leonard's research looks at how accurately helicopter pilots could fly predetermined GPS routes of flight both into and out of the Grand Forks International Airport, Kenville said. The routes are layered over predetermined helicopter arrival and departure procedures using latitude and longitude data. Leonard retrieves the research data using multiple software tools and digitally recreates each flight route. Routes are measured, and the maximum deviation for each section of flight is recorded in an attempt to determine which sections of flight are usable.

Leonard was honored at the awards banquet and ceremony in Washington, D.C. on January 9, 2010.

AVIATION IS THEIR MUHS

BY AMANDA SCURRY

All it took was one flight and they were hooked. Three brothers from a family of six kids in Towner, N.D. are now living their dreams thanks to the University of North Dakota John D. Odegard School of Aerospace Sciences.

While none of them are professional pilots, brothers Robert, Chuck and Jack Muhs have made successful careers for themselves in the aviation industry and are well aware that they owe the opportunity to do so to UND Aerospace.

IT'S CONTAGIOUS

The eldest of the Muhs siblings, Robert, was planning to coach sports when he enrolled at the University of North Dakota. That was until he met some aviation majors in an Air Force ROTC class and at the Delta Tau Delta fraternity house he later joined.

"The first time I had ever been in an airplane was with one of them out at the university, and I got hooked," remembered Robert. "My first ride was in a Cessna 310A that the university had and I was thoroughly enthralled. The biggest task was figuring out how to pay for it."

He made it work and started flight lessons the following fall.

"The first time I ever got to go flying in my entire life was this one time when my brother [Robert] came home with a UND airplane and a flight instructor and I got to go up flying and I was pretty much hooked from that point on," said Jack, the youngest of the Muhs siblings. "I was 11 or 12 at the time and I had determined at that point that aviation was going to be some part of my future."

When it was time, Jack followed his brothers to UND. He also chose to join the Delta Tau Delta fraternity.

"I had really two benefits," Jack remembered. "Being known by some of the professors there, being known by the dean of the school obviously helped me, but also to be surrounded by a bunch of aviation students at Delta Tau Delta was a benefit because I had a houseful of tutors."

Chuck, a photographer and in the middle of the siblings, didn't catch the bug quite as bad. His connection to the school through his older brother brought him opportunities to help promote the school through his photography.

"People in the aviation industry are generally very passionate about what they do," explained Jack. "Aviation is kind of like the light bulb and we're all like little moths that want to circle around and get warm by it."

DIFFERENT PATHS

When he graduated from UND, commercial pilot jobs were scarce, so Robert became a station agent for Northwest Airlines in Great Falls, Montana. This started 32 years that he spent with Northwest and then Delta moving up through the company from station agent in several cities to flight dispatch then operations planning and moving to management in 1998. In 2007, he became vice president systems operations control. He became vice president of flight operations and system operations control in 2009. Due to the merger of Northwest and Delta, he left the company in October 2009.



"Aviation is kind of like the light bulb and we're all like little moths that want to circle around and get warm by it."

-- Jack Muhs

"The opportunities in the industry are vast," explained Robert. "As fun as flying is...I think people should recognize that there is tons of value in working in other parts of the business. Maybe equally as challenging as learning how to fly and getting a position at an airline or at a corporation as a pilot, but the intensity and the opportunity to use the resources that you've gained from your education just to work in that environment are very intriguing and the opportunities are equally as great."

Chuck followed his brother to UND and attended the school for two years before transferring to the Brooks Institute in Santa Barbara, Calif to pursue his interest in photography. Life soon brought him back to North Dakota where he began doing photography work for then Dean John Odegard to help promote the school. His photos were included in an issue of Air and Space magazine with a story on the school. This experience led to further aerospace marketing opportunities.

His varied career has included a weather modification program in Morocco, software sales to aerospace companies and starting aviation companies in Saudi Arabia for members of their royal family. He is currently the vice president of business development for TKC Aerospace.

Jack started his tenure with FedEx while still a student, taking an internship as assistant to the dispatcher and later loading planes at the Grand Forks airport. When he graduated from UND with a degree in airport administration, he worked for several years in the company's system control division. Later, he moved to management in global operations control and has been with the global trade services division for the last three years. He is currently the senior vice president of international planning and global trade services for FedEx.

"I decided I wanted to get into the ground side of the business because I liked the influencing of the direction of the business," said Jack. "I just decided I wanted more of a bigger picture of how the

operation worked."

THE REPUTATION

Although interviewed separately for this article, all three brothers cited the reputation of the UND program and the foresight of its founder, John Odegard, as being critical in their careers.

"[UND John D. Odegard School of Aerospace Sciences] is recognized as an outstanding school and one of the leading aviation schools," said Chuck. "I think what has been accomplished there has happened on several levels. John, obviously, was the great entrepreneurial spirit, and I think you have to give Dean Smith a lot of credit for keeping it growing, because a lot of time it's easier to grow things, but to maintain that level of excellence is another skill set that's really important."

The school's home in North Dakota is part of its success, say the brothers.

"For my family to afford to send me to Embry Riddle or one of the private schools that had aviation or even an out of state school, I would not have had that chance," explains Jack. "Just access to the opportunity, especially for kids from North Dakota, [is important]. Just to have the chance."

"I think there are a lot of people that say 'Hey, I'm from North Dakota, I can't to this. We're in the middle of nowhere,'" said Chuck. "But if we can do this in North Dakota, we can do it anywhere. We can be world class. We can be leaders in aviation education, weather modification research and I think [students take away] that can-do attitude."

"Because of the graduates that [the professors] had, they developed a reputation in the industry so that they knew that if they took care of you [at UND] that you would help take care of the next round of students in the future," said Jack. "You can take of them in two ways, one, by direct involvement actually supporting that student, but two, and probably more importantly, you took care of them

(continued on page 10)



(continued from page 9)

because you carried on the reputation of the school. So that when somebody else came to apply that had a degree from the University of North Dakota, they'd have instant credibility just because of all the graduates that had gone on before."

"There are a lot of successful people from North Dakota working in management positions and officer positions [in the aviation industry] because of the talent they bring," said Robert. "In part because of their education, but also because of the stimulation, the challenge and the creativity required to work in those positions is great."

GIVING BACK

It was Chuck's idea to start two scholarships in the Muhs name at the University of North Dakota in the mid-'90s. The scholarships go to a deserving North Dakota School of Aerospace Sciences student each year. Since its inception over \$10,000 has been awarded through the Muhs Family Scholarship.

"It was a nice way to give back to the school in a way that was meaningful to the students," said Jack who contributes to the scholarships his brother established. "I can remember living off macaroni and cheese and Ramen noodles for a while, so I know it makes a difference."

"We've all lived through the experience of living hand to mouth and working a couple of jobs while we were in school so we could support our flying and do the things we want to do in college and to get our education," agreed Robert. "I got a couple of scholarships while I was there and I just think, especially on the Aerospace side with as much money as you spend on flying and all the other kinds of things and that education is expensive, its just nice to be able to return some of that."

FAMILY AFFAIR

The UND tradition in the family continues beyond the three brothers. Their father received a master's degree in education. The fourth brother in the family is a medical doctor who graduated from



UND's medical school and one of their two sisters who works in banking, also graduated from UND. Their other sister, who works in health care administration, graduated from Jamestown College.

Their father was the superintendent of the high school in Towner and education was an important part of all six kids' lives. Nowadays, family conversations often drift to the aviation industry.

"We all compare notes," said Robert. "It's kind of fun to talk because it gives you different perspectives. It's nice to hear how their businesses are approaching problems and how they're impacted by the economy and what's going on in their side of the business and how that relates to you and vice versa."

"The other thing is that the networking helps," he said. "You get to meet other people in their organization, so you get their views of what's going on in the industry and I think that is always helpful and adds perspective when you're working in your own area."

The Muhs family tradition is continuing at UND Aerospace. Jack's eldest son, James Jr. is a second year student and in professional flight training. His second son, Thomas, is planning to start attending UND in 2010, majoring in air traffic control. ●

SCHOLARSHIPS

IMPACTING LIVES



Gifts made to support the students and programs of the John D. Odegard School of Aerospace Sciences have tremendous impact on the lives of our students. Whether you are considering giving to an existing scholarship, creating a new scholarship, providing for equipment, or priority needs within the Odegard School your support is greatly appreciated by all of those it touches.

There are many opportunities for you to support the growth and advancement of the Odegard School. To learn more, please contact Josh Christianson, UND Aerospace Development Director by calling 701.777.4637.



ALL TEAM FLYING TEAM REUNION

Saturday, April 24, 2010
7:00pm - 10:00pm
Embassy Suites - Airport
7901 34th Ave S
Bloomington, MN

Come join your teammates, past members, and coaches of the UND Flying Team for a night of reminiscing and find out where the team is headed in 2010. RSVP to Katherine Pendergast at 701.777.0492 or kpendergast@aero.und.edu.



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AERONews

JIANGLONG ZHANG RECEIVES PRESIDENTIAL AWARD

Dr. Jianglong Zhang, Assistant Professor of Atmospheric Sciences, has been selected for a Presidential Early Career Award for Scientists and Engineers (PECASE). The Presidential Award is the highest honor bestowed by the U.S. government on outstanding scientists and engineers beginning their independent careers. The White House, following recommendations from participating agencies, confers the awards annually. Each Presidential Award is of five years duration. Dr. Zhang will be receiving his award through the Department of Defense Office of Naval Research. Dr. Zhang was also a recent recipient of a Department of Defense Young Investigator Program award from Office of Naval Research. His research is focused on satellite detection of atmospheric aerosols and real-time assimilation of these data into numerical forecast models.

TINA ANDERSON

has been selected by the Transportation Research Board as a member of an Airport Cooperative Research Program panel. The panel will provide counsel and technical guidance for Defining and Measuring Aircraft and Airfield Delay.

DR. GRETCHEN MULLENDORE,

Assistant Professor of Atmospheric Sciences, has been awarded \$355,155 over 3 years by the National Science Foundation (NSF) for her proposal entitled "Deep convective transport to the upper- troposphere/lower- stratosphere". The proposal was submitted to the Physical and Dynamic Meteorology Program of the NSF Atmospheric & Geospace Sciences Division. The funded research will use radar observations and atmospheric computer models to better quantify the current amount of transport of natural and anthropogenic gases from the near surface to the tropopause region in severe storms, important for understanding the ramifications of deep convection on the chemical budget, and consequently the ramifications on the radiative budget and climate change.

EAA CHAPTER 1342, a student group conceived and lead by JDOSAS students, recently purchased a 1954 Piper Pacer aircraft rebuild project. This project will allow members to gain a more detailed knowledge of aircraft construction methods, hands-on maintenance experience, and increased exposure to grassroots aviation. While the aircraft is under construction they intend to take the partially completed aircraft to their Young Eagle activities and use it as an additional tool to motivate young people and inspire them to seek their dreams. Chapter 1342 has already flown more than 1500 grade school-age children since the chapter was formed; so this project simply adds additional impetus to what has already been an extremely energetic organization. When finished, the aircraft will be used to resurrect the UND Flying Club--the same organization founded and lead by John Odegard while he was a student at UND. Persons wishing to participate or contribute to may contact the Chapter 1342 President, Mike Morgen at michael.morgen@und.edu or Jeremy Duke, the new UND Flying Club President, at flyinduke@gmail.com.



HELIPAD LIGHTING SYSTEMS RESEARCH

Research conducted by Tina Anderson and Tom Zeidlik will include the evaluation of helipad perimeter lighting systems to help the FAA validate the specifications of lighting systems used at heliports. The Altru Hospital's helipad in Grand Forks, ND will be the site utilized for the research activity. Data on the lighting systems intensity and chromaticity will be collected and analyzed.

HELICOPTER TERRAIN AWARENESS AND WARNING SYSTEMS (HTAWS) & ENHANCED VISION SYSTEMS (EVS)

For the past three years, Professors Graziano and Anderson have been evaluating the effectiveness of using HTAWS and EVS in the EMS community to reduce incidents of controlled flights into terrain (CFIT). Because their data gathering efforts consisted of evaluating equipment that was already deployed and in use in the field, they had the opportunity to fly with Air Evac LifeTeam, headquartered in West Plains, Missouri, evaluating the Garmin 396 and the Max-Viz 1000 EVS, as well as the Honeywell test flight team evaluating Honeywell MK XXI and XXII HTAWS. The team also worked with the Civil Aeromedical Institute (CAMI) in Oklahoma City evaluating the Chelton HTAWS installed on CAMI's Bell 206 flight training device. In the summer of 2009, the team conducted further testing using a portable helicopter flight training device (FTD) and EMS pilots from North Memorial Air Care. Pilots at North Memorial's Brainerd, Bemidji, Lakeview, and Redwood Falls locations flew missions in the FTD that recreated routes and weather conditions taken from the NTSB accident data base. Briefly, this research concluded that this equipment can provide adequate response time, provided the pilot is trained and proficient in the use of the equipment, and cognizant of its limitations.

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FULFILLING A *Lifelong Dream*

BY CYNDEE LEPPKE PAYNE,
ASSISTANT TO THE VICE PRESIDENT FOR
ACADEMIC AFFAIRS, VPAA/PROVOST



Cyndee (left) with son
Joshua Axt and First
Lady Marcia Kelley

When I answered the phone May 2, 2009, there was a sense of excitement and urgency in his voice. "I've landed out here in the Skalicky parking lot if you want to come and see me. I'm giving helicopter rides to UND alum and Foundation donors."

"Of course I want to see you! I'll be right there!" I hurriedly changed into my black jeans and put on my black leather jacket. I was thankful that I had taken the time that Saturday morning to put on my makeup. Not that I needed to have makeup on to see him, but since he was giving rides to VIP's, I wanted to look my best. I had waited for this moment for over 2 years and now it was finally here, suddenly and without warning.

As I drove to see him, I was filled with excitement and it almost seemed that this was the culmination of a dream that had been born in both of us 24 years earlier. As I neared my destination, I also realized that I was the only one that he had called and that was special. Somehow, it seemed appropriate since I was his biggest fan and had always believed in him and encouraged him.

It had been 24 years earlier while we were driving through the desert on the Beeline highway from Fountain Hills to Mesa, Arizona, that Joshua, age 3, had seen his first helicopter. It was an Apache helicopter doing flight maneuvers over the desert. Josh pointed his finger toward the helicopter and said, "Copter, Copter!"

From that day on, Joshua wanted to be a pilot. The first books we got him after that day in the desert were from McDonnell Douglas on their helicopters, including the Apache. Even in those early years of Preschool, Kindergarten, and Grade school Joshua loved to look at and eventually read books about all kinds of aircraft and talk about what each one could do, what it was designed for and how fast it could fly. His drawings were almost always of jets or helicopters.

He began talking about becoming a jet fighter pilot in grade school, and for a long time seemed fascinated with aircraft carriers and dreamed of being a pilot stationed on one of those floating military units.

Even though my "mother's heart" was concerned about the safety of my son, I knew even then, that I needed to encourage him to be whatever he wanted to be and to do whatever he wanted to do.

As he researched out the various aircraft, flying careers, pros, and cons, he also realized the dangers and downside of particular flying careers. He decided that trying to land a jet in the middle of the ocean on something that from the air looked like a moving postage stamp and being confined to small quarters was not for him. I have to admit that I was relieved that he had come to that decision on his own.

In high school, Joshua excelled in math and science classes and did exceptionally well in his three years of Engineer Drawing. He seemed

to enjoy it as well, and as high school graduation approached, it seemed that pursuing a degree and career in engineering would be the route to go.

He applied to the University of North Dakota and designated Engineering as his major, but things took a bit of a turn when he and I visited the campus for Freshman Orientation the summer of 1999. While sitting through the various presentations on what UND had to offer, we learned the fact that UND had a world renowned aviation department and one of the largest flight schools in the world! Joshua and I both looked at each other with wide-eyed excitement and instantly knew that this was something we definitely needed to look into.

At first Joshua questioned the cost of going into commercial aviation and if it was the right thing to do. I told him that he needed to pursue his life-long dream of flying no matter what it cost. If he did anything else, he would never be fulfilled or happy. He quickly changed his designated major from Engineering to Aviation.

Joshua graduated Summa Cum Laude from the University of North Dakota with a B.S. in Aeronautics with a major in Commercial Aviation in the Spring of 2003. He had become a flight instructor for UND the Fall of 2002 and was hired on full time the summer of 2003 and planned to continue being a flight instructor for a couple of years to build up his hours.

In 2002 when Joshua first started flight instructing fixed wing, his grandmother asked him how he liked his work. He said, "Grandma, it's not work; it's fun! I'm flying!"

While we were packing up his things from Swanson Hall after graduation, I asked him, "Have you ever thought about getting your Masters degree?" Joshua surprised me by responding, "Actually, I have." Immediately the encouraging mother in me replied, "Did you know that you can now get your Masters of Science degree in Aviation here at UND? In fact, the first two students just graduated from that program. If you get a Masters Degree in Aviation you will be very marketable; plus, if you ever find yourself unable to fly or unable to pass your medical, at least you can stay in the aviation industry. Since you plan on staying here another two years anyway doing flight instruction, you might as well pick up your Masters degree. Another benefit of staying in school is that you will also defer you student loan payments!"

Well, I think he was already hooked before I asked him if he wanted to go to Grad School, but he just made me think that I was doing my job by trying to convince him. Long story short: I immediately went and obtained the applications for UND Grad School and started filling them out for him. I figured I might as well "strike while the iron is hot" and before he changed his mind! And, of course, we needed to get him enrolled quickly so he could start classes.

Joshua graduated December 2005 with his Masters of Science Degree in Aviation. It had been a busy and exciting year for him. While instructing full time and working on his thesis, he also found time to get married to Cassandra Lynne Frownfelter "09" on July 30, 2005!

Even though Joshua thoroughly enjoyed flying fixed wing, I knew that his passion had always been helicopters, so when he had the opportunity to transition over to helicopters, it was no surprise when he wrote to me in an email, "This is what I have always wanted to do and now the opportunity is staring at me in the face. I have to do this."

July 2006, Joshua transitioned over to helicopters with over 2000 logged hours in fixed wing and went on his first helicopter ride with a student on June 11, 2007.

Even though he had been flying helicopters now for over two years, I had never seen him fly a helicopter and I was about to see that dream come true with my own eyes.

Arriving at the Skalicky parking lot, I quickly parked, grabbed my camera and started running toward the helicopter, slowing to a brisk walk as I neared the 5 people that had gathered around him.

I found out that my son was giving helicopter rides to UND alum & donors Dave & Gay Williamson and their guests. Dave was the high bidder at the Sioux-Per Gala fundraiser on a dinner for 8 with UND President and Mrs. Kelley. The President wanted to do something extra special for the dinner party so decided to give them a helicopter ride.

The last flight only had two passengers so I was invited to ride along knowing, of course, that the pilot was my son, Joshua Axt, a helicopter pilot and instructor at the UND John D. Odegard School of Aerospace Sciences. Even though I had flown with Joshua many times before in various airplanes; this was extra special.

Not only did I get to ride in a helicopter for the first time, but to make the ride extra special was the fact that my son was the pilot and that UND's First Lady Marcia Kelley was also on board; and yes, I did get to ride up front with the pilot! ●



ALUMNI PROFILES

1970s

Leonard Hoffmann, '78 BSBA Aviation Administration, is a captain for Delta Airlines and lives in Webster, MN with his wife, Margaret.

1980s

Col. J. Peter Hronek, '82 BSBA Aviation Administration, has been selected as the new Wing Commander at the Montana Air National Guard. During his 25 years with the Guard, he has logged more than 3500 hours in sky some of which was spent on two missions in Iraq. He received the Bronze Star for his service. He and his wife, Traci, live in Great Falls, MT.

Robert Hensley, '83 BSBA Aviation Administration, is president of Hensley Aerospace, LLC and a pilot for Delta Airlines. Robert resides in Minneapolis, MN.

Brian Gora, '83 BSBA Aviation Administration, is president of Goodrich Sensors and Integrated Systems. He also serves on the UND's UAS Center of Excellence Board of Directors and was elected president of the UND Aerospace Alumni Advisory Board. He lives with his wife, Donna, in Lakeville, MN.

Phil Hein, '85 BS Aeronautical Studies, is a first officer with UPS and lives with his wife, Susan, in Burlington, WI.

Robert Geisler, '86 BSBA Aviation Administration, is a captain for NWA/Delta and lives in Lakeville, MN with his wife, Kristin.

Larry Olson, '87 BSBA Aviation Administration, is a MD-11 captain for FedEx based in Memphis. He lives in Big Lake, MN with his wife, Allison.

1990s

Chad Lahman, '90 BSBA Aviation Administration, is the director of aviation for Level 3 Communications. He and his wife, Lori, live in Westminster, CO.

Denise Banaszewski, '91 BSBA Aviation Administration, is an attorney with Stokes Lawrence, PS. She resides in Seattle, WA.

Dr. Stein Cass, '92 MS Space Studies, is an engineering manager for Ball Aerospace and Technologies Corporation. He lives with his wife, Therese, in Longmont, CO.

Tom Hauge, '92 BS Aeronautical Studies, is director of sales and aviation insurance broker for Wings Insurance. Tom lives in Chaska, MN.

Neil Brackin, '93 BSBA Aviation Administration, is the director of air transportation for General Mills. Neil and his wife, Kelly, live in Minnetonka, MN.

Darren Anderson, '93 BSBA Airport Administration, is the assistant director of Hector International Airport. Darren and his wife, Sheri, reside in Fargo, ND.

Ben Sclair, '93 BSBA Aviation Administration, is publisher of General Aviation News. Ben and his wife, Debbie '92, live in Lakewood, WA.

Kristin (Dahlgren) Jones, '94 BS Aeronautical Studies, is a first officer with United Airlines and lives with her husband, Patrick, in Parker, CO.

Matt Coleman, '94 BS Aeronautical Studies, is an instructor pilot with Boeing and lives in Seattle, WA.

Serena Townsend, '95 BS Aeronautical Studies, is a first officer with Delta Airlines and lives in Newnan, GA.

Karrie Krear-Klostermeier, '96 BS Airway Science, is an air traffic control specialist at the Minneapolis Terminal Radar Approach Center (M98 TRACON). She lives in Farmington, MN with her husband, Steven.

Jason Basil, '98 BS Aeronautical Studies, is a first officer for Southwest Airlines based in Chicago Midway. He and wife Cindy (Hurtt) '98 BS Recreation and Leisure Services, live in South Bend, IN with their two children.

Jeff Nightingale, '99 BS Aeronautics, flight department manager for Wildwood Industries. He and his wife, Tiffany, live in Bloomington, IL.

2000s

Barbara Lee, '01 MS Space Studies, is employed by Lockheed Martin and lives in Ladera Ranch, CA.

Andy Arnott, '01 BS Aeronautics, is an air traffic controller at KCCR, Concord, CA. He lives in Sacramento, CA.

Ronald Smith, '02 BS Aeronautics, is regional aircraft sales director for Pilatus. He lives with his wife, Sunniva Hoff, '02 BSBA, in Boise, ID.

Adam Humpal, '02 BS Aeronautics, works at TRACON for the Chicago area and lives in Joliet, IL with his wife, Paula (Benjamin) '02 BS Aeronautics, and two dogs.

Jeff Kluenker, '04 BS Aeronautics, is a B99 and B1900 captain for Ameriflight and resides in Roseville, CA.

Mark Larsen, '04 BSBA Aviation Management, is a project manager with the Operations Service Group of the National Business Aviation Association. He lives in Bethesda, MD.

Joshua Axt, '05 MS Aviation, is an assistant chief flight instructor for helicopters at UND. He lives with wife, Cassandra and daughter, Natasha Katelynne, in Grand Forks, ND. Natasha was the first baby born on January 1, 2010 at Altru Hospital in Grand Forks.

Matt Berggren, '05 MS Space Studies, is an experimental fighter test pilot at Edwards AFB, CA.

ALUMNI ADVISORY BOARD UPDATE

2009 was a year of a few "firsts" and a few "changes" for the Aerospace Alumni Advisory Board (AAAB). In the summer edition of Aerocom, we talked about the first AAAB Industry Workshop program. This program included several different Board members who presented to the Contemporary Issues in Aviation class on the subject of the impact of the current economy on the Aerospace Industry. In the fall, Kurt Jensen conducted the first Aerospace faculty presentation and discussion. The goal of this activity, which will now become an annual event, was to explain the overall mission of the AAAB as well as the background and capability of the AAAB members to better serve the faculty as industry advisors. We also added 12 new members to the Board during our Spring and Fall meetings. One of the more exciting things we did in 2009 was to launch our new Facebook page. Please look us up our group "UND Aerospace Alumni Advisory Board."

We're also in the process of updating our website so check us out at www.aero.und.edu/AlumBoard.

In our Fall (Homecoming) meeting, we rolled out a new structure to the AAAB. We now have two categories of membership; Executive and Associate. Executive members are required to attend at least one of the two meetings held during each calendar year and to keep their contact information current. Associate members are required to keep their contact information current but they are not required (but certainly welcome) to participate in any meetings during the year. The purpose of this change was to provide the maximum opportunity for Aerospace Alumni to be part of the AAAB and to support the school as advisors. But for many AAAB members, time constraints and competing priorities make it difficult to participate in formal meetings which why we created an Associate Member category. At the Fall meeting, we also elected new officers for the next two years. Brian Gora was elected President, Tom Hague was elected Vice President and Molly Boss was elected Secretary/Treasurer. We'd like to offer a special thanks to Kurt Jensen our outgoing President for his many contributions to the Board

during his two-year term at the helm of the AAAB.

As stated in previous AEROCOM updates, the AAAB is open to all alumni who have an interest in serving in an advisory role to support the JDO School. We welcome all Aerospace disciplines to join our ranks. If you have an interest in joining the Board, please send an email to me at the email addresses shown below with a brief description of your career experience since leaving UND. Please copy Josh Christianson at joshc@aero.und.edu.

As we look toward 2010, we will continue to work to find ways to better support UND Aerospace. We encourage faculty, students and alumni to contact the Board and take advantage of the tremendous breadth of experience resident in our Board members. Many of our Board members travel to UND frequently and we'd welcome to opportunity to support faculty and students during those visits. We also look forward to opportunities to support the new UAS Center of Excellence. Any alumni having an interest in this area should contact me as well.

Brian Gora ('83)
President, Aerospace Alumni
Advisory Board
brian.gora@goodrich.com
(President, Goodrich
Corporation, Sensors and
Integrated Systems Division)



ALUMNI ADVISORY BOARD MEMBERS

Brian Gora '83 – president
Tom Hauge '92 – vice president
Molly Boss '98 – secretary/treasurer
Kurt Jensen '79 – past president

Rich Baker '00
Molly Boss '98
Craig Boxrucker '00
Jim Bunke '78
Doug Coleman '84
Chris Cooper '05
Michelle Ems '05
Rob Geisler '86
Michael Gillen '92
Brian Gora '83
Eric Hall '90
Tom Hauge '92

Robert Hedrick '82
Joel Heining '92
Erich Hess '00
Kurt Jensen '79
Matt Kalouner '01
Dan Knesek '97
Steve Kuhlman '89
Todd Lasky '02
Steve Leon '90
Larry Martin '71
Roger Martin '73
Andrew Miller '93

Jack Muhs '87
Robert Muhs '77
Jerry Murray '77
John Nelson '90
John Odegard '89
Erin Olson '05
Rob Schermerhorn '86
Josh Shields '00
Corey Stephens '99
Richard Stork '04
Jeff Swing '96
Nicholas Tomlin '94

February 25-27 Orlando, FL	Women in Aviation
March 7-9 Fargo, ND	ND Upper Midwest Aviation Symposium
April 24 Bloomington, MN	UND Flying Team Reunion
April 27-29 Orlando, FL	RATS/WATS
May 1-2 Anchorage, AK	Alaska State Aviation Expo
May 1 Anchorage, AK	UND Aerospace Alumni & Industry Reception
May 11 Minneapolis, MN	UND Aerospace Alumni Advisory Board Meeting
May 16-19 Philadelphia, PA	AAAE Conference & Exposition
May 22 Grand Forks, ND	Grand Forks Air Force Base
May 24-27 Milwaukee, WI	RAA
June 24 Spokane, WA	Fairchild Air show
July 7-11 Arlington, WA	Arlington Air Show
July 17-18 Duluth, MN	Duluth Air Show
July 26-Aug 1 Oshkosh, WI	Oshkosh Air Venture
July 28 Oshkosh, WI	UND Aerospace Alumni & Industry Reception
July 31 Minneapolis, MN	UND Day with the MN Twins

AEROCOM is published for the alumni and friends of the John D. Odegard School of Aerospace Sciences. AEROCOM welcomes your suggestions, story ideas, alumni profile information or photos from the past to be used in future publications.

Please send your information via mail to:

John D. Odegard School of Aerospace Sciences
Attn: Josh Christianson
3980 Campus Road, Stop 9007
Grand Forks, ND 58202-9007

Or via e-mail to: joshc@aero.und.edu

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From the **ARCHIVES**



Sandra Preston and instructor James Montgomery going over a checklist in the cockpit of a Cessna 150. In 1956, Preston was the first female pilot to solo as a member of the UND Flying Club. Her first solo was after only nine hours of dual flying time.